

Remarks

Applicants respectfully request reconsideration of the present U.S. Patent application as amended herein. Claims 1, 12, 22, 32 and 42 have been amended. Claims 2, 3, 13, 23, 24, 33, 34, 43, and 51-60 have been canceled previously. Thus, claims 1, 4-12, 14-22, 25-32, 36-42, and 44-50 are pending.

Claim Rejections - 35 U.S.C. § 102(e) - Claims 1, 4, 7, 8, 11, 12, 14, 16-18, 21, 22, 25, and 27-29

Claims 1, 4, 7, 8, 11, 12, 14, 16-18, 21, 22, 25, and 27-29 were rejected as being anticipated by U.S. Patent Application Publication No. 2003/0210221 to Aleksic (*Aleksic*). Applicants respectfully submit that Applicants' invention as claimed is not anticipated by *Aleksic* for at least the following reasons.

Claim 1 recites:

- determining an ambient light level for an operating environment of a display device having an adjustable backlight to provide variable brightness by causing the duty cycle of a backlight control signal to be modified based on the ambient light level;

- modifying pixel color intensity values and contrast corresponding to one or more portions of an image to be displayed on the display device based on the ambient light level, by scaling sub-pixel color on a per-pixel basis in order to achieve greater luminance in some areas of the display image, while reducing the luminance in other areas of the display image, wherein a brightness for one or more features within a displayed image is modified; and

- modifying the backlight intensity based on the modified pixel color intensity values wherein modification to the backlight intensity approximately offsets the modification to the pixel color intensity values.

Claim 12 recites similar limitations.

Claim 22 recites:

- an ambient light sensor to generate signals indicating a sensed ambient light level;

a display device having an adjustable backlight source; and
a graphics control device coupled with the ambient light sensor on the display device, the graphics control device to modify pixel color intensity values and contrast corresponding to one or more portions of an image and backlight intensity based on the sensed ambient light level;
wherein the graphics control device modifies backlight intensity based on the sensed ambient light level by causing the duty cycle of a backlight control signal to be modified based on the ambient light level and modifies the pixel color intensity values and contrast corresponding to one or more portions of an image to be displayed on the display device based on the modified backlight intensity, and the graphics control device scales sub-pixel color on a per-pixel basis in order to achieve greater luminance in some areas of the display image, while reducing the luminance in other areas of the display image, wherein a brightness for one or more features within a displayed image is modified.

Thus, Applicants claim modifying backlight intensity and pixel color intensity for features within an image to be displayed.

Aleksic discloses modifying a color scaling factor. See paragraph 0028. This changes, for example, all blue sub-pixels within an image by the same amount. Therefore, *Aleksic* does not disclose modifying backlight intensity and pixel color intensity for features within an image to be displayed. Therefore, *Aleksic* cannot anticipate the invention as recited in claims 1, 12, and 22.

Claims 4, 7, 8, and 11 depend from claim 1. Claims 14, 16-18, and 21 depend from claim 12. Claims 25 and 27-29 depend from claim 22. Because dependent claims include the limitations of the claims from which they depend, applicants submit that claims 1, 4, 7, 8, 11, 12, 14, 16-18, 21, 22, 25, and 27-29 are not anticipated by *Aleksic* for at least the reasons set forth above.

Claim Rejections - 35 U.S.C. § 103(a) – Claim 6

The Office Action rejects claim 6 under 35 U.S.C. § 103(a) as being unpatentable over *Aleksic* in view of U.S. Patent Application Publication No. 2002/0154138 to Wada (*Wada*). For at least the following reasons set forth below, Applicants submit that claim 6 is not rendered obvious by *Aleksic* in view of *Wada*.

Claim 6 depends from claim 1. The limitations of claim 1 are not disclosed or suggested by *Aleksic*. The rejection of claim 6 differs from the rejection of claim 1 in that it further includes the addition of *Wada*. *Wada* is introduced to show a variety of features. However, *Wada* does not cure the deficiencies of *Aleksic*. Therefore, no combination of *Aleksic* and *Wada* can teach or suggest the invention as recited in claim 6.

Claim Rejections - 35 U.S.C. § 103(a) – Claims 5, 9, 10, 15, 19, 20, 30-32, 35-42, and 44-50

The Office Action rejects claims 5, 9, 10, 15, 19, 20, 30-32, 35-42 and 44-50 under 35 U.S.C. § 103(a) as being unpatentable over *Aleksic* in view of U.S. Patent No. 6,618,045 issued to Lin (*Lin*). For at least the following reasons set forth below, Applicants submit that claims 5, 9, 10, 15, 19, 20, 30-32, 35-42 and 44-50 are not rendered obvious by *Aleksic* in view of *Lin*.

Claim 32 recites:

- determine an ambient light level for a display device having an adjustable backlight to provide variable backlight intensity;
- modify the backlight intensity based on the ambient light level by causing the duty cycle of a backlight control signal to be modified based on the ambient light level; and
- modify pixel color intensity values and contrast corresponding to or one or more portions of an image to be displayed on the display device based on the modified intensity of the adjustable backlight, by scaling sub-pixel color on a per-pixel basis in order to achieve greater luminance in

some areas of the display image, while reducing the luminance in other areas of the display image, wherein a brightness for one or more features within a displayed image is modified;

wherein modification to the pixel color intensity values approximately offsets the modification to the backlight intensity.

Claims 42 recites:

determine an ambient light level for a display device having an adjustable backlight to provide variable backlight intensity by causing the duty cycle of a backlight control signal to be modified based on the ambient light level;

modify pixel color intensity values and contrast corresponding to one or more portions of an image to be displayed on the display device based on the ambient light level, by scaling sub-pixel color on a per-pixel basis in order to achieve greater luminance in some areas of the display image, while reducing the luminance in other areas of the display image, wherein a brightness for one or more features within a displayed image is modified; and

modify the backlight intensity based on the modified pixel color intensity values wherein modification to the backlight intensity approximately offsets the modification to the pixel color intensity values.

As discussed above, *Aleksic* does not teach or suggest modifying backlight intensity and pixel color intensity for features within an image to be displayed. *Lin* is cited to disclose that “modifying color, brightness, and/or contrast can be done through any combination of software or hardware.” See page 9. However, *Lin* is not cited to cure the defects of *Aleksic*.

Therefore, the combination of *Aleksic* and *Lin* is improperly motivated to teach or suggest claims 32 and 42. Even if combined, *Aleksic* and *Lin* do not teach or suggest modifying backlight intensity and pixel color intensity for features within an image to be displayed.

Claims 35-41 depend from claim 22. Claims 44-50 depend from claim 42.

Because dependent claims include the limitations of the claims from which they depend,

applicants submit that *Aleksic* does not render claims 35-41 and 44-50 obvious in further view of *Lin* for at least the reasons set forth above.

Claims 5, 9, and 10 depend from claim 1. Claims 15, 19, and 20 depend from claim 12. Claims 30 and 31 depend from claim 22. As discussed above, *Aleksic* does not teach or suggest the invention as claimed in claims 1, 12, and 22 because *Aleksic* fails to disclose “modifying ... color intensity values.” Therefore, the combination of *Aleksic* and *Lin* is improperly motivated to teach or suggest claims 5, 9, 10, 15, 19, 20, 30, and 31 because the combination fails to disclose modifying color intensity values.

Claim Rejections - 35 U.S.C. § 103(a) – Claim 26

The Office Action rejects claim 26 under 35 U.S.C. § 103(a) as being unpatentable over *Aleksic* in view of U.S. Patent Application No. 2004/0156183 to Kim (*Kim*). For at least the following reasons set forth below, Applicants submit that claim 26 is not rendered obvious by *Aleksic* in view of *Kim*.

Claim 26 depends from claim 22. Claim 22 is shown to be patentable over *Aleksic*. The rejection of claim 26 differs from the rejection of claim 22 in that it further includes the addition of *Kim*. *Kim* is introduced to show a variety of features, but not to show the limitations of claim 22. Accordingly, the rejection of claim 26 should be withdrawn.

Conclusion

For at least the foregoing reasons, Applicants submit that the rejections of the claims have been overcome herein, placing all pending claims in condition for allowance. Such action is earnestly solicited. The Examiner is respectfully requested to contact the

undersigned by telephone if such contact would further the examination of the present application. Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,

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